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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Vasudevan, Subramanian
Serial No.: 10/001,296
Filed: 11/02/2001
Group Art Unit: 2616
Examiner: Wong, Warner
Title: A METHOD FOR ALLOCATING WIRELESS
COMMUNICATION RESOURCES

REPLY BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is in reply to the Examiner's Answer mailed June 27, 2008.

There are several problems with the Examiner's analysis that are worth mentioning here. Appellant has already fully explained why it is not possible to make the Examiner's proposed combination. Any one of the reasons why there is no *prima facie* case of obviousness stated in Appellant's opening brief are independently dispositive of the improper rejection. This reply brief addresses specific statements made by the Examiner in the Examiner's answer.

Appellant disagrees with the Examiner's analysis and interpretation of the *Gitlin* and *Hortensius* references. In addition to being wrong about what the *Gitlin* reference actually teaches, the Examiner draws some incorrect conclusions. Some of those are addressed below.

For example, the Examiner is incorrect when interpreting the *Gitlin* reference by stating, "*Gitlin* describes ... transmitting/receiving information over a shared wireless channel by varying

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a time span (total time slots to transfer entire information payload) ... wherein the time span is based on the channel quality (col. 8, lines 42-45, where the scheduler varies its scheduling (time span) according to the Bit Error Rate (BER) (channel quality).” Examiner’s Answer, pages 3-4.

Gitlin does not vary a time span for scheduling “according to” channel quality. As explained by Appellant and as is clear from the *Gitlin* reference, the technique of that reference is to assign codes to users (depending on whether they are high rate or low rate users) and to then schedule those users so that an amount of interference between their respective codes will not result in a BER exceeding a threshold. The scheduling in *Gitlin* does not include varying a time span but instead is concerned with which users are scheduled at the same time as (or next to) other users with potentially interfering codes. The code-based scheduling of *Gitlin* has nothing to do with varying a time span according to channel quality.

The Examiner also makes an unsupported leap of logic when asserting, “The Examiner merely deploys ‘the rate of change of channel quality value’ used in *Hortensius* in replacing ‘the change of channel quality’ value used in *Gitlin*.” Examiner’s Answer, page 8. In the next sentence, the Examiner incorrectly concludes “One of ordinary skill in the art can easily replace the measured value of ‘change in channel quality’ used in *Gitlin* with ‘the rate of change in channel quality’ used in *Hortensius* to result better success in data transmission.” (Emphasis in original.) On the following page, the Examiner states it this way, “The Examiner is merely using another measurement of ‘a speed of change in the link quality’ for the measurement used in *Gitlin*.” Examiner’s Answer, page 9.

There is no “change of channel quality value” used in *Gitlin*. The BER, which the Examiner relies on as “channel quality,” is not used as an indicator of a *change in* channel quality. The BER of *Gitlin* is set by the schedule based upon the way in which the users of

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different codes are scheduled relative to each other. There is nothing in the reference that in any way discusses a change in channel quality value or how that would be used for varying any time span. Instead, the entire discussion in *Gitlin* revolves around the strategy for assigning codes and choosing the users (i.e., codes) that can be scheduled simultaneously or near each other to avoid interference between codes.

The Examiner is not merely replacing one value with another. The value the Examiner proposes to replace does not even exist in the *Gitlin* reference. The allegedly replaced value is nowhere found in the *Gitlin* reference. There is no use of any change in channel quality for varying a time span in the *Gitlin* reference. *Gitlin* does not use a change in channel quality to assign the different user codes nor does *Gitlin* use a change in channel quality for deciding when the different user codes are scheduled.

Additionally, the Examiner is completely redesigning the *Gitlin* reference (using an imagined version of the *Gitlin* reference as a starting point) and attempting to substitute in a completely different and incompatible feature of the *Hortensius* reference. Not only are the two techniques incompatible but if one were to make the Examiner's proposed change to what the *Gitlin* reference actually teaches, that would change the principle of operation of the *Gitlin* reference. According to MPEP 2143.01(VI), such a modification cannot be made.

The last statement worth commenting upon is found on page 9 of the Examiner's Answer where the Examiner incorrectly concludes, "Hence, *Gitlin* does suggest[s] using channel quality for varying (scheduling) the transmission bandwidth and duty cycle (see also *Gitlin* fig. 7 in view of fig. 2a of instant application for varying/scheduling code/time)." (Emphasis added.)

Perhaps this statement provides insight into the Examiner's unreasonable interpretation of the *Gitlin* reference. The Examiner is using Appellants disclosure for purposes of interpreting

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the *Gitlin* reference. Not only is that improper hindsight, but it leads the Examiner to extrapolate away from the actual teachings of the *Gitlin* reference in an attempt to manufacture an imagined operation in the *Gitlin* reference that allegedly lends itself to an "easy replacement" to become something that corresponds to Appellant's claimed invention. There is nothing about assigning codes to users or selecting which codes to schedule at which time in the *Gitlin* reference that in any way uses channel quality for varying bandwidth or duty cycle. The Examiner is, therefore, wrong in making that conclusion.

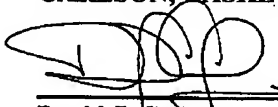
The rejection under 35 U.S.C. §103 of claims 1-19 must be reversed.

Respectfully submitted,

CARLSON, GASKEY & OLDS, P.C.

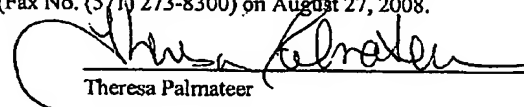
August 27, 2008

Date


David J. Gaskey
Registration No. 37,139
400 W. Maple, Suite 350
Birmingham, MI 48009
(248) 988-8360

CERTIFICATE OF FACSIMILE

I hereby certify that this Appeal Brief, relative to Application Serial No. 10/001/296 is being facsimile transmitted to the Patent and Trademark Office (Fax No. (571) 273-8300) on August 27, 2008.


Theresa Palmateer